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ABSTRACT

A comparative study was made between education majors at the University of Georgia (UGA) and at Georgia Southern College (GSC) in an effort to evaluate the teacher education programs of the two schools and to assess the effectiveness of competency based teacher education. A questionnaire submitted to entering education students in both schools provided information on each student in the areas of personal background, beliefs, values, aspirations, and self concept. Exiting students responded to a similar questionnaire and were also asked to evaluate their college experience. Comparative tables are displayed showing the differences in responses from students of the two schools. To evaluate the effectiveness of competency based education, the Teacher Performance Assessment Instrument (TPAI) was used. Teacher competency scores on the TPAI were correlated with high pupil achievement scores. It was found that specific predictions about success in teacher education, using the entering and exiting attitude and background questionnaires, can be enhanced by also using the TPAI. It is suggested that this instrument is useful in screening students for teacher education. Samples are included of followup surveys to graduates of both GSC and UGA. (JD)

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PROMOTING QUALITY THROUGH PROGRAM EVALUATION AND FOLLOW-UP: RESULTS FROM TWO GEORGIA INSTITUTIONS

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PROMOTING QUALITY THROUGH PROGRAM EVALUATION AND FOLLOW-UP STUDIES:
RESULTS FROM TWO GEORGIA INSTITUTIONS

Introduction

Urged on by a tradition which emphasized the importance of evaluation in the learning process, by societal forces that spawned accountability, performance-based teacher preparation and certification, by the requirements of accrediting agencies, and eventually by retrenchment, a number of colleges of education implemented longitudinal studies to evaluate the effects of teacher education programs (Hord and Hall, 1978). This presentation will examine the collaborative effort that is in progress at Georgia Southern College (GSC) and the University of Georgia (UGA) to conduct program evaluation and follow-up activities.

A comprehensive plan to investigate the role that programmatic variables and student characteristics play in determining teacher effectiveness was implemented by the Program Research and Evaluation Committee (PRECO) at the University of Georgia (UGA) in 1974. Each quarter PRECO members collected, analyzed and summarized information about pre-service teachers and program elements (Hawn, Cryan, and Johnson, 1975). This work continued until 1978 when the Georgia Professional Standards Commission created the Professional Programs Evaluation Project. Determining the feasibility of establishing a Research and Assessment Center for Georgia Professional Programs was a major goal of this effort and identifying representative institutions to participate was a primary thrust. The State Superintendent of Schools, in 1980, asked the State Department of Education to develop plans to create a three million dollar center of educational research and evaluation in Georgia (Atlanta Journal, 1980).

To implement the new center concept, a pilot project was started in the winter of 1980 to expand the PRECO model from UGA to GSC. Plans exist to invite the participation of additional institutions.

The model for evaluation and research developed by PRECO and utilized at UGA and GSC includes five areas of assessment: (1) personal characteristics of pre-service students; (2) characteristics of professional program components (including field experience); (3) performance of students in professional sequences; (4) performance of pupils taught by teachers, and (5) long range effects of teacher education programs on graduates.

A description of the PRECO model as it is being employed at GSC and UGA, the instruments utilized in various components, and major findings from studies conducted are presented in the following sections. Program revisions that have occurred and implications for instructional changes are discussed.

Personal Characteristics of Pre-Service Students

To date, background information has been gathered from approximately 300 GSC and 700 UGA pre-service teachers. The battery of instruments utilized to assess personal characteristics of the students include the: (a) Entering and Exiting Student Information Inventories (demographic data); (b) Sixteen Personality Factor Questionaire (16PF); (c) California Test of Mental Maturity (CTMM) (UGA only); (d) Personal Beliefs Inventory (PBI); (e) Teacher Practices Inventory (TPI); (f) Dogmatism Scale (D Scale); (g) Value Survey; (h) UGA Semantic Differential Inventory (UGA only); and (i) the Estimate of Self Competence (ESC) (GSC only) (Pool, Elmore and Hawn, 1977).

Student Basic Information Forms

A longitudinal investigation into the characteristics and effectiveness of teachers and teacher educational programs necessitated the collection and availability of a complete set of descriptive data for each student.

The Entering Student Basic Information Form is a twenty-seven item instrument. Most of the responses are provided by the students in group sessions. The items include:

a. name
b. identification number
c. sex
d. race
e. year of birth
f. place of birth (state)
g. marital status
h. number of children
i. parents' occupational status
j. date he/she entered the GSC teacher education program
k. area of teacher education (i.e., early childhood, upper elementary, secondary, exceptional child, etc.)
l. siblings
m. name of program advisor
n. if a transfer student from another college, information concerning the transfer
o. experiences working with children
p. self-judged condition of his/her own health
q. attitude toward the teaching of particular school subjects
r. career aspirations
s. exceptionalities (i.e., gifted, handicapped)

Items of information obtained from other sources also included on the inventory are:

a. total number of accumulated college credits at time of admission to the program
b. cululative college grade-point average at time of admission to the program
c. Scholastic Aptitude Test (scores from high school)
d. cumulative high school grade-point average at graduation

Table 1 summarizes and compares data from the Entering Student Basic Information Form for GSC and UGA students. The results are based upon a

Table 1
Comparision of Entering Information
for GSC and UGA Teacher Education Students

Category	GSC	UGA
Sex:		
Female	80%	
Male	20%	
Place of Birth:		
Georgia	69%	54%
Other States	31%	
Health:		
Excellent	71%	
Good	26%	
Fair	1.5%	
Parents' Occupational Status		
Category: 1	35.1%	
2	57.5%	80%
3	2.2%	
Transfer Students:	43%	48%
Entering Grade Point Average to School of Eduation:	2.5	2.8
High School GPA:		
High School SAT:		
Verbal (Mean)	403.4	434
Math (Mean)	420.92	458
Prior Work with Children:		
babysitting	84%	
Church School	62%	
Summer Camp	25%	
Teach Aide/Paraprofessional	57%	
Substitute Teacher	11%	
Course Related Work	34%	
Other Work With Children	29%	
College Leadership Activity:		
Yes	37%	28%

*Complexity of skills according to the Dictionary of Occupational Titles.

sample of 134 students entering GSC during 1980 and 106 entering UGA during the 1975-76 school year.

Most GSC students were female (80%) who were born in Georgia (69%) and who were in excellent health (71%).

Comparisons between GSC and UGA students indicated that: more GSC students are native Georgians (60% and 54%); UGA students appear to be from higher socio-economic backgrounds; more students transfer to UGA (43% to 48%); achievement scores appear to be somewhat higher for UGA students (i.e., GPA, SATV, SATM); both institutions have similar prior experience with children; and more GSC students participate in college leadership activities (37% to 28%).

The entering student information raises questions relevant to program development. What is the quality, in terms of achievement scores, of students entering teacher education? What should be the quality of students who are admitted? How diverse are students in terms of age, sex, race, socio-economic, geographic and cultural backgrounds? Does the diversity of student characteristics indicate a need for multicultural educational planning?

Exiting Student Information Form

The exiting student information form is designed to obtain additional personal and academic information about students at the time of program completion. Student teachers are asked to furnish:

a. date of graduation
b. GPA at graduation
c. degree major
d. advisor's name
e. NTE scores
f. ratings of content area strengths
g. evaluations of most and least effective courses
h. program strengths and weaknesses
i. sex

j. race
k. year of birth
l. marital status
m. occupational status of parents
n. SAT scores
o. experience with children
p. college leadership
q. professional objective

Students are also asked to evaluate how effective their programs were in preparing them to demonstrate competencies deemed essential for certification by the state board.

Table 2 shows only a limited comparison between GSC and UGA exiting students. Some of the demographic statistics were unavailable when this paper was written. The table does, however, indicate higher GPA and NTE scores for UGA students.

Table 3 contains a comparison of entering and exiting basic information for GSC students. One finding of interest is the decline in the number of males from entry to exit. It is also of interest that the percentage of students who declared elementary, middle school, exceptional child and K-12 as majors changed dramatically from entry to exit. The percentages, for example, of elementary (1-7) changed from 6.7 to 16.7 and of middle school (4-8) changed from 7.5 to .9.

The exiting information has implications for program evaluation and revision and several questions may be asked. Are the characteristics of students who completed programs similar to those who entered (i.e., in terms of sex, race, socio-economic status, geographic, and cultural backgrounds)? What is the quality of exiting students in terms of achievement (i.e., NTE, GPA, and Georgia Teacher Certification Tests for Teachers)? What do students believe are strengths and weaknesses of programs?

At UGA, for example, evaluations provided by exiting students have resulted in the creation of and deletion of courses. Staffing changes have resulted from

TABLE 2

Comparison of Exiting Information

For Teacher Education Students at GSC and UGA

Category	GSC[a] 1980 % or $\bar{x}$	SD	UGA[b] 1978 % or $\bar{x}$	SD
Sex:				
Female	87.6			
Male	12.4			
Degree Major				
Elementary	16.7			
Middle School	.9			
Early Child.	30.7			
Secondary	25.4			
Exc. Child.	6.1			
K-12 (art, music, PE)	20.2			
GPA at Graduation	2.89		3.13	
NTE Scores:				
Commons	574.5	68.7	588.0	101.4
Area	629.5		652.9	

n_a = 115

n_b = 55

TABLE 3

Comparison of Entering and Exiting Information

For Teacher Education Students at GSC, 1980

Category	Entering$_a$ % or $\bar{x}$	SD	Exiting$_b$ % or $\bar{x}$	SD	df	t
Sex:						
Female	80		87.6			
Male	20		12.4			
GPA	2.5	7.7	2.89	.80	247	.538
Degree						
Major:						
Elementary (1-8)	6.7		16 7			
Middle School(4-8)	7.5		.9			
Early Child.(K-4)	28.4		30.7			
Secondary	23.1		25.4			
Exceptional Ch.	11.9		6.1			
K-12 (art, PE & music)	15.7		20.2			
Undecided	6.0					

n_a = 134

n_b = 115

the evaluations. Hawn (1980) reports that a course for both elementary and secondary students was divided into separate courses when it was discovered that the instructor was only presenting secondary education material.

Sixteen Personality Questionnaire

According to Cattell, et al. (1970), the 16PF "is designed to make available, in a practicable testing time, information about an individual's standing on the majority of primary personality factors. . . in the human personality sphere. . ." The letters used as indicators for the 16 factors are the same as those used on the test and appear in Figure 1. The names are the technical referents; those in parentheses are near equivalents found in the handbook where a more extensive description of each factor is provided.

Summaries and comparisons of the results of the 16PF for entering and exiting students at GSC are presented in Table 4. Although scores of both entering and exiting students fell within the normal range, significant differences existed between entering and exiting 16PF scores for GSC students.

Exiting students appeared less dominant (Factor E) ($p. < .01$), and sensitive (Factor I) ($p. < .01$), and became more practical (Factor M) ($p. < .05$), shrewd (Factor N) ($p. < .05$), experimenting (Factor Q_1) ($p. < .01$), and self-sufficient (Factor Q_2) ($p. < .01$).

Table 5 indicates that statistically significant differences existed between GSC and UGA entering students on Factors B (Intelligence) ($p. < .01$); E (Submissiveness) ($p. < .05$); G (Superego Strength) ($p. < .01$); Q_2 (Group Adherence) ($p. < .01$); Q_4 (Relaxed-Tense) ($p. < .05$).

UGA students appeared to be more intelligent, assertive and tense. GSC students were more conscientious and self-sufficient.

Figure 1

Primary Source Traits Identified by the 16PF

Factor Referent	Characteristic for Low Score	Characteristic for High Score
A	Sizothymia (Reserved, detached)	Affectothymia (Warmhearted, outgoing)
B	Low Intelligence (Dull)	High Intelligence (Bright)
C	Emotional Instability (Affected by feelings)	Higher Ego Strength (Emotionally stable)
E	Submissive (Humble)	Dominance (Assertive)
F	Desurgency (Sober, taciturn)	Surgency Enthusiastic (Happy-go-lucky)
G	Low Superego Strength (Expedient)	Superego Strength (Conscientious)
H	Threctia (Shy, timid)	Parmia (Adventurous, socially bold)
I	Harria (Tough-minded)	Premisa (Tender-minded)
L	Alaxia (Trusting)	Protension (Suspecting)
M	Praxernia (Practical)	Autia (Imaginative)
N	Naivete (Forthright, unpretentious)	Shrewdness (Astute, worldly)
O	Untroubled Adequacy (Placid, self-assured)	Guilt Proneness (Apprehensive, self-reproaching)
Q_1	Conservatism of Temperament (Respecting established rules)	Radicalism (Experimenting, liberal)
Q_2	Group Adherence (Group dependency) ("a joiner")	Self-sufficiency (Resourceful, prefers own decisions)
Q_3	Low Self-sentiment Integration (Uncontrolled)	High Strength of Self-sentiment Controlled, exacting willpower)
Q_4	Low Ergic Tension (Relaxed, tranquil)	High Ergic Tension (Tense, frustrated)

TABLE 4

A Comparison of 16 PF Means, Standard Deviations and T Scores

For Entering and Exiting Students at GSC in 1980

16PF Factors	Entering $\bar{x}$	SD	Exiting $\bar{x}$	SD	t Score
A	5.6	1.7	5.4	1.8	.897
B	5.5	1.8	5.4	1.8	.435
C	5.7	2.0	5.9	1.9	.838
E	5.8	1.9	5.6	2.0	.804
F	6.0	1.9	5.4	2.0	2.415**
G	6.7	2.0	6.8	1.8	.453
H	6.2	1.9	5.9	1.9	1.400
I	6.2	1.9	5.5	2.0	2.817**
L	5.6	2.0	5.3	1.9	1.350
M	5.0	1.8	4.5	1.9	2.121*
N	5.6	1.8	6.1	2.2	1.963*
O	5.6	1.9	5.7	2.0	.392
Q_1	4.4	1.8	5.0	2.0	2.481**
Q_2	5.2	2.0	6.3	1.6	2.560**
Q_3	6.5	1.9	6.7	2.0	.805
Q_4	5.2	2.0	5.4	2.0	.784
N =	134		115		

* p. < .05
** p. < .01

TABLE 5

A Comparison of 16 PF Means, Standard Deviations, and t-Scores for Entering Education Students at GSC and UGA

16 PF Factors	Georgia Southern College $\bar{x}$	S.D.	University of Georgia $\bar{x}$	S.D.	t-Score
A	5.6	1.7	5.5	1.7	.45
B	5.5	1.8	6.1	1.9	2.49**
C	5.7	2.0	5.8	1.9	.39
E	5.8	1.9	6.3	2.0	1.97*
F	6.0	1.9	6.4	2.0	1.58
G	6.7	2.0	6.1	1.8	2.40**
H	6.2	1.9	6.2	2.2	.00
I	6.2	1.9	6.4	2.2	.75
L	5.6	2.0	5.3	2.0	1.15
M	5.0	1.8	4.8	2.0	.81
N	5.6	1.8	5.3	2.0	1.22
O	5.6	1.9	5.9	2.0	1.18
Q_1	4.4	1.8	4.7	2.2	1.16
Q_2	5.2	2.0	4.4	2.4	2.80**
Q_3	6.5	1.9	6.3	2.2	.75
Q_4	5.2	2.0	5.7	2.1	1.87*
N =	134		106		

* $p < .05$
** $p < .01$

Table 6 indicates that significant differences existed between the 16PF scores of exiting GSC and UGA students. UGA students were higher on Factors A (outgoing) ($p. < .05$), C (emotional stability) ($p. < .05$), F (relaxed) ($p. < .01$), H (adventurous) ($p. < .05$), I (sensitive) ($p. < .01$), M (imaginative) ($p. < .01$), O (apprehensive) ($p. < .05$) and Q_4 (tense) ($p. < .05$). GSC students were higher on Q_2 (self-sufficiency) ($p. < .05$).

Personal Beliefs Inventory (PBI)

The PBI (Brown, 1962) measures the extent to which one's personal beliefs are in agreement with John Dewey's philosophy. Consisting of 50 general philosophical statements taken from the writings of John Dewey, 20 statements express ideas compatible with Dewey's philosophy, 20 express ideas incompatible with his philosophy. High scores indicate high agreement and low scores indicate low agreement.

Table 7 indicates a significant ($p. < .01$) difference between the entering and exiting PBI scores of GSC students. Exiting students are more in agreement with Dewey in their personal beliefs.

Tables 8 and 9 indicates no significant differences exist between the PBI scores of entering GSC and UGA students and between exiting GSC and UGA students.

Teacher Practices Inventory (TPI)

To determine the general nature of the educational beliefs of entering students, another part of the Experimental Scale (Brown, 1962), entitled the Teacher Practices Inventory (TPI) was used. The TPI consists of 40 statements concerning teaching practices suggested by various categories constituting a theoretical framework for describing John Dewey's educational philosophy.

TABLE 6

A Comparison of 16 PF Means, Standard Deviations, and t-Scores

For Exiting Education Students at GSC and UGA

16PF Factors	GSC $\bar{x}$	GSC SD	UGA $\bar{x}$	UGA SD	t-Scores
A	5.4	1.8	6.3	3.9	2.050*
B	5.4	1.8	5.1	2.7	1.040
C	5.9	1.9	7.2	5.4	2.291*
E	5.6	2.0	6.2	3.4	1.433
F	5.4	2.0	7.3	5.5	3.260**
G	5.8	1.8	7.5	4.6	1.412
H	5.9	1.9	7.0	4.4	2.261*
I	5.5	2.0	6.8	4.5	2.591**
L	5.3	1.9	5.2	2.7	.277
M	4.5	1.9	6.1	4.0	4.055**
N	6.1	2.2	6.0	3.9	1.059
O	5.7	2.1	6.6	4.0	1.910*
Q_1	5.0	2.0	4.6	2.9	1.271
Q_2	6.3	1.6	5.5	3.1	2.205*
Q_3	6.7	2.0	6.8	4.1	.212
Q_4	5.4	2.0	6.5	4.6	2.158*
n =		115		55	

* p. < .05
** p. < .01

TABLE 7

Results of Personal Beliefs Inventory Comparing Scores of Students Entering and Exiting Education at Georgia Southern College

Group	Mean	S.D.	DF	t
Entering$_a$	130.3	13.8	246	3.772*
Exiting$_b$	137.0	14.0		

N_a=133

N_b=115

TABLE 8

Results of Personal Beliefs Inventory Comparing Scores for Students Exiting Education at Georgia Southern College and the University of Georgia

Group	Mean	S.D.	DF	t
GSC$_a$	137.0	14.0	168	1.48
UGA$_b$	133.5	15.0		

N_a=115

N_b=55

TABLE 9

Results of Personal Beliefs Inventory Comparing Scores of Students Entering Education at Georgia Southern College and the University of Georgia

Group	Mean	S.D.	DF	t
GSC$_a$	130.3	13.8	237	.81
UGA$_b$	131.4	13.4		

N_a=133

N_b=106

*p. < .05
**p. < .01

Consistent with the PBI procedures, respondents to the TPI are requested to indicate the extent of agreement each statement has with their own beliefs. High scores on the TPI indicate relative agreement with Dewey and low scores indicate a measure of disagreement.

Table 10 indicates that no significant difference exists between the TPI scores of entering and exiting students at GSC. Tables 11 and 12 indicate that significant ($p. < .01$) differences exist between the TPI scores of entering GSC and UGA students and between the TPI scores of exiting GSC and UGA students. UGA entering and exiting students appear to be higher in agreement with the teaching practices beliefs of Dewey.

The Dogmatism Scale (D Scale)

The D Scale, developed by Milton Rokeach, purports to provide a measure of the degree of flexibility characterizing a respondent's belief system. Studies using the D Scale indicate that it measures authoritarianism, i.e., the rigidity of a respondent's beliefs concerning people and ideas, independent of a particular ideology.

The D Scale contains 40 statements asking respondents to indicate how much they agree or disagree with each statement. The score earned by a respondent is the summation of responses to all items; a higher score indicates a higher level of dogmatism, more closedness and greater rigidity, and a lower score indicates a lower level of dogmatism, more openness, and greater flexibility in the structure of a respondent's belief system.

Table 13 indicates a significant ($p. < .01$) difference between the D Scale scores of entering and exiting students at GSC. Exiting students appear to be less dogmatic, closed and rigid in their beliefs.

TABLE 10

Results of Teacher Practices Inventory Comparing Scores of Students Entering and Exiting Education at Georgia Southern College

Group	Mean	S.D.	DF	t
Entering$_a$	145.2	16.6	247	.768
Exiting$_b$	146.8	16.0		

N_a=134

N_b=115

TABLE 11

Results of Teacher Practices Inventory Comparing Scores of Students Entering Education at Georgia Southern College and the University of Georgia

Group	Mean	S.D.	DF	t
GSC$_a$	145.2	16.6	238	6.07**
UGA$_b$	160.0	20.9		

N_a=134

N_b=106

TABLE 12

Results of Teacher Practices Inventory Comparing Scores of Students Exiting Education at Georgia Southern College and the University of Georgia

Group	Mean	S.D.	DF	t
GSC$_a$	146.8	16.0	168	6.35**
UGA$_b$	168.2	27.5		

N_a=115

N_b=55

Tables 14 and 15 indicate no significant differences exist between the D Scale scores of entering GSC and UGA students and between the D Scale scores of exiting GSC and UGA students.

Value Survey

The Value Survey, Form D, (Rokeach, 1973) is a projective test, simple in design and economical to administer to groups or individuals. It consists of two lists of 18 alphabetically arranged value referents. One list contains terminal values which are related to life goals both social and personal in orientation (e.g., "salvation," "family security," and "a world at peace") while the other list contains instrumental values which are related to life styles involving competence and morality (e.g., "honest," "logical," and "clean").

Respondents are instructed to arrange the values in each list in order of personal importance. The instrument does not yield a conventional score. The rank-order procedure is ordinal, with each item capable of independence of meaning. Median scores were derived to describe group rankings.

Table 16 indicates that the three highest instrumental values for GSC entering students were "helpful," "independent" and "imaginative." For UGA students, values receiving highest ranks were "helpful," "loving" and "honest." Lowest rankings for the GSC group were "obedient," "logical" and "intellectual" and lowest rankings for the UGA group were "responsible," "clean" and "polite."

Highest rankings for GSC students on the terminal values were "salvation," "self-respect" and "pleasure." For the UGA group, highest values were "national security," "pleasure" and "mature love." Lowest rankings for GSC students were "comfortable life," "mature love" and "true friendship" and for UGA students were "comfortable life," "wisdom" and "true friendship."

TABLE 13

Results of D Scale Comparing Scores of Students Entering and Exiting Education at Georgia Southern College.

Group	Mean	S.D.	DF	t
Entering$_a$	139.5	16.6	247	2.35**
Exiting$_b$	134.0	20.1		

N_a=134

N_b=115

TABLE 14

Results of D Scale Comparing Scores of Students Entering Education at Georgia Southern College and the University of Georgia.

Group	Mean	S.D.	DF	t
GSC$_a$	139.5	16.6	238	1.63
UGA$_b$	143.4	20.3		

N_a=134

N_b=106

TABLE 15

Results of D Scale Comparing Scores of Students Exiting Education at Georgia Southern College and the University of Georgia.

Group	Mean	S.D.	DF	t
GSC$_a$	134.0	20.1	168	1.03
UGA$_b$	137.7	24.8		

N_a=115

N_b=55

*p. < .05
**p. < .01

Table 16

Median Scores of Instrumental Values on Rokeach Value Survey for Students Entering the School of Education at GSC Compared With Students Entering the School of Education at UGA

Instrumental Values	GSC		UGA	
AMBITIOUS	9.26	(9)	9.50	(9)
BROADMINDED	9.33	(10)	8.13	(4)
CAPABLE	9.42	(11)	8.93	(8)
CHEERFUL	9.06	(8)	8.65	(7)
CLEAN	8.21	(6)	10.88	(15)
COURAGEOUS	9.45	(12)	8.50	(6)*
FORGIVING	7.96	(4)	8.50	(6)*
HELPFUL	7.33	(1)	7.50	(1)
HONEST	8.04	(5)	7.94	(3)
IMAGINATIVE	7.91	(3)	8.20	(5)
INDEPENDENT	7.60	(2)	9.50	(9)
INTELLECTUAL	10.91	(16)	9.94	(11)
LOGICAL	10.55	(17)	9.90	(10)
LOVING	8.46	(7)	7.83	(2)
OBEDIENT	10.56	(18)	10.60	(13)
POLITE	9.82	(13)	10.70	(14)
RESPONSIBLE	10.14	(14)	11.89	(16)
SELF-CONTROLLED	10.16	(15)	10.24	(12)

Numbers in parentheses represent rank-order of values of each group.

* Values that had identical scores.

Table 17

Median Scores of Terminal Values on Rokeach Value Survey for Students Entering the School of Education at GSC Compared with Students Entering the School of Education at UGA

Terminal Values	GSC		UGA	
COMFORTABLE LIFE	13.55	(16)	13.55	(17)
EXCITING LIFE	10.21	(13)	9.86	(12)*
SENSE OF ACCOMPLISHMENT	10.13	(12)*	10.97	(14)
A WORLD AT PEACE	9.67	(9)	9.20	(10)
A WORLD OF BEAUTY	9.70	(10)	9.68	(11)
EQUALITY	10.13	(12)*	9.86	(12)*
FAMILY SECURITY	9.50	(8)	8.50	(8)
FREEDOM	8.63	(6)	7.93	(4)
HAPPINESS	8.77	(7)	8.83	(9)
INNER HARMONY	8.31	(4)	8.39	(7)
MATURE LOVE	10.67	(15)*	7.68	(3)
NATIONAL SECURITY	8.33	(5)	6.90	(1)
PLEASURE	7.64	(3)	7.50	(2)
SALVATION	7.25	(1)	8.10	(5)
SELF-RESPECT	7.33	(2)	10.67	(13)
SOCIAL RECOGNITION	9.88	(11)	8.30	(6)
TRUE FRIENDSHIP	10.67	(15)*	11.56	(15)
WISDOM	10.63	(14)	11.78	(16)

Numbers in parentheses represent rank-order of values for each group.

*These values had the same rank-order.

Value survey data for exiting GSC and UGA students, while available at the present time, have not been analyzed.

Estimate of Self-Competence (ESC)

The Estimate of Self Competence (ESC) is a scale which purports to measure "generalized expectancy of task success, a trait which is presumed to reflect persons' beliefs regarding their likelihood of success in task situations. . ." (Motowidlo, 1979).

Respondents are instructed to mark a five-step scale from almost never to almost always for 10 specific and two global items. High scores are associated with high sense of efficacy (SOE) and low scores reflect low SOE.

Table 18 indicates a significant difference ($p. < .01$) exists between the ESC scores of entering and exiting students at GSC. Exiting students perceived themselves to be more competent to be successful in accomplishing tasks than entering students.

Georgia Teacher Certification Tests

One set of exiting measures of cognitive teaching ability is the Georgia Teacher Certification Tests (GTCT). The GTCT's are 24 subject area criterion referenced exams based upon performance objectives most frequently used by Georgia educators for classroom instruction. Individual scores are

> . . . evaluated against an established level of competence. The pass/fail scores of these tests have been derived from information supplied by Georgia Teaching field content experts who reviewed the test items for minimum content knowledge competence that (1) practicing Georgia teachers must have in order to successfully teach in the classroom or (2) if for a non-teaching

TABLE 18

Comparison of Entering and Exiting ESC Scores

For GSC Students, 1980

Group	$\bar{x}$	SD	df	t-Score
Entering$_a$	149.9	18.0	247	4.351**
Exiting$_b$	160.0	18.38		

n_a = 134

n_b = 115

** p. < .01

position, must have in order to be successful in the position. The pass/fail scores clearly define those individuals demonstrating sufficient competence in the teaching field. (Registration Bulletin 1980-81: GTCT Program, p. 2)

Figure 2, a GTCT program score report for an early childhood test taken by GSC students in 1979 illustrates pass/fail scores (fail scores were categorized into three subareas of (1) slightly deficient, (2) deficient and (3) very deficient). Percentages of subarea items passed are provided.

National Teacher Examinations (NTE)

The National Teachers Examinations are required by the Georgia Board of Regents as an exit examination for all graduates in teacher education. The examinations are comprised of the Weighted Commons Test and Area Test for numerous teaching specializations.

Personal Characteristics Studies

A number of investigations have been conducted utilizing entering and exiting data from the personality, beliefs, and values measures. Elmore and Ellett (1979) conducted a canonical analysis to examine multivariate relationships among achievement, personality, and beliefs scores for entering students. A major finding was that prospective teachers who indicate a high amount of agreement with Dewey's philosophy of education also score high on the imagination and experimentation factors of the 16PF. In another study, Elmore and Ellett (1980) examined relationships between cognitive performance and personality and belief system characteristics of exiting teacher education students. Cognitive achievement was measured by the NTE and GPA. A major finding was that specific predictions about student success in teacher education, using criteria such as NTE and GPA, might be

GEORGIA TEACHER CERTIFICATION TESTING PROGRAM

TEST SCORE REPORT FOR GEORGIA SOUTHERN COLLEGE

DATE TEST TAKEN: MAY 19, 1979
TEST TAKEN: EARLY CHILDHOOD

QUESTIONS ON THE TEST ARE GROUPED INTO MAJOR CONTENT SUBAREAS. THE PERCENTAGE CORRECT BY EACH EXAMINEE ON EACH SUBAREA IS GIVEN. THE NUMBER OF QUESTIONS PER SUBAREA IS NOT EQUAL AND THEREFORE AN AVERAGE OF THE SUBAREA PERCENTAGES DOES NOT EQUAL THE TOTAL TEST SCORE.

THE SUBAREAS ON THE TEST ARE AS FOLLOWS:

1 = LANGUAGE ARTS
2 = MATHEMATICS
3 = SCIENCE
4 = SOCIAL STUDIES
5 = ART
6 = MUSIC
7 = PHYSICAL EDUCATION, OUTDOOR EDUCATION, HEALTH

INSTITUTION:	14 EXAMINEES TOOK THE TEST	13 PASSED (93%)	1 FAILED (7%)
STATEWIDE:	238 EXAMINEES TOOK THE TEST	199 PASSED (84%)	39 FAILED (16%)

SD = SLIGHTLY DEFICIENT
D = DEFICIENT
VD = VERY DEFICIENT

EXAMINEE NAME	PASS/ FAIL	SUBAREA 1	2	3	4	5	6	7
K	PASS	100	97	92	91	100	100	100
L	PASS	82	87	46	100	67	100	78
L	PASS	70	71	54	73	67	100	89
W	PASS	58	89	31	82	67	100	89
D	PASS	79	97	92	82	67	100	89
G	PASS	88	82	69	82	67	100	67
K	FAIL - SD	55	47	54	55	33	100	89
A	PASS	61	71	62	55	100	100	89
A	PASS	85	79	54	91	67	100	78
	PASS	64	84	69	73	33	100	100
J	PASS	76	79	69	73	67	100	100
F	PASS	76	97	85	73	67	100	89
E	PASS	73	61	77	91	67	100	78
M	PASS	70	74	62	73	67	100	67
INSTITUTION AVERAGE		74	80	65	78	67	100	86
STATEWIDE AVERAGE		71	73	61	66	61	86	78

Figure 2

enhanced by the inclusion of scores from the TPI. The TPI might be a a useful tool in screening students for teacher education.

Hawn, Ellett and Johnson (1977), in a study to determine the relationship between personal characteristics of entering students and subsequent success in college, found that SAT mathematics scores and four 16PF factors, in combination, accounted for approximately 35% of college GPA variance while more traditional predictors such as HSGPA and SAT verbal scores failed to account for significant amounts of variance.

Cryan, Johnson, and Hawn (1976) conducted a series of investigations to analyze the personal characteristics of UGA students in terms of entering and exiting information data, personality, beliefs (PBI, TPI, and D Scale), values and cognition (CTMM, GPA, and NTE).

Characteristics of Professional Program Components And Progress of Students in Professional Sequences

Considerable time and energy were spent at the University of Georgia from 1971-1975 to develop competency-based instructional programs in elementary education. And while some efforts were made to evaluate individualized, performance-based components, few systematic investigations were undertaken. A similar history occurred at GSC where faculty identified competencies deemed important for effective teaching and developed informal competency-based measures for use in pre-student teaching and student teaching laboratory experiences.

Rieff (1979) evaluated the progress of early childhood and middle school programs toward competency-based certification requirements established in 1977. Student teachers completing those programs rated the

extent to which they were taught competencies deemed essential by the State Department of Education. Faculty rated the extent to which competencies were emphasized in the instructional programs. Student teachers' classroom scores on the state competency test (TPAI) were utilized to examine program effectiveness. Both early childhood and middle school majors believed they were acquiring the competencies satisfactorily. College faculty believed they were effective in teaching certain competencies and ineffective in teaching others. The classroom performance scores of student teachers were at or above designated minimum levels. "Based on these scores. . . the programs appear to be effective in providing students with the competencies deemed necessary for teaching" (Rieff, 1979).

Elmore (1974) examined the effects of a competency-based, field-centered teacher education program on pre-service teachers' self-concept, achievement and attitudes towards program elements. Classroom teachers participating in field-centered programs at the University of Georgia were surveyed by Elmore and Cromartie (1975) to determine perceptions of program operation, benefit to pre-service teachers, and benefits to in-service teachers and pupils.

Performance of Pupils Taught By Teachers

One of the great challenges of performance-based teacher education is the goal of assessing the competence of educators and the effectiveness of programs through on-the-job, behavioral evaluations. Many who espoused the use of the competency model in teacher education were frustrated in trying to accomplish the goal. The process appeared fraught with difficulties of defining competencies and constructing and validating reliable measures.

Work on this important task, however, has continued at the University of Georgia's Teacher Assessment Project (TAP) where a battery of tests, Teacher Performance Assessment Instruments (TPAI), have been developed for use in teacher certification and staff development. Composed of separate instruments, the measures assess (a) Teaching Plans and Materials (TPM), (b) Classroom Procedures (CP), (c) Interpersonal Skills (IS), (d) Professional Standards (PS), and (e) Student Perceptions (SP). Trained data collectors administer the TPAI.

Criterion related validity studies of the TPAI were conducted by Okey, Capie and Johnson (1978). The first investigation involved teachers in grades 1-5 and a second comprised teachers in grades 6-12. Teacher competency scores on the TPAI were correlated with pupil achievement scores on either the Metropolitan Achievement test or from teacher-made tests. ". . . Scores on 19 of the 20 competencies (on the TPAI) correlated significantly with pupil achievment. . ." but correlations between TPAI scores and pupil scores on teacher-made tests were ". . . superior in accounting for the relationship between teacher competency and pupil achievement." Teacher competency scores were correlated significantly with pupils' short-term and long-term achievement, and "on-task" behavior.

In a later study of 126 elementary and secondary teachers and 3,152 pupils, Ellett, Capie, and Johnson (1980) further tested the criterion-related validity of the TPAI. TPAI scores of teachers were correlated with pupil perceptions of the school environment, pupil on-task behavior and pupil scores on teacher-made tests. Correlations between TPAI scores and pupil perceptions of the learning environment showed ". . . moderate and frequent relationships." (Significant, positive correlations ranged

from .23 to .45). Fewer significant correlations (10 of 46) existed between TPAI and "on-task" scores (range of r's = .22 to .43), and 52 of 65 TPAI/teacher-made test correlations (80%) were significant (p. < .05) (range of r's = .00 to .45) and positive in direction.

Elmore (1980) in a study involving 115 student teachers, investigated the cognitive, personality and beliefs correlates of students' TPAI scores. Significant correlations (p. < .01) existed between TPAI (TPM, CP, and IS) scores and cognitive (GPA, NTEWC and NTEA), personality and beliefs scores (range of r's = .26 to .41).

The implications of findings from the above studies for program development are summarized by Ellett, et al. (1980) in the following comments:

> Virtually every indicator and competency was shown to be significantly related to mean pupil achievement in the desired direction. . . . This study demonstrates the general quality of the TPAI for measuring a 'conception' of good teaching.
>
> More importantly for the larger educational community, perhaps, is the picture of 'good' teaching that emerges from these results. The pattern of significant findings suggests that planning with specific objectives is an important teaching element related to pupil learning. . . [and the] importance of management of classroom procedures and allocation of time are supported here. Achievement occurs when tasks are clear and goal directed, when students have opportunities to actively participate, and when teachers keep students involved in learning activities.

It would appear, then, that teacher education curricula designed to promote within teachers competencies such as those assessed by the TPAI may be more effective in preparing teachers who can produce desirable learning outcomes within pupils.

Long Range Effects of Programs on Graduates

Surveys to follow-up graduates are conducted at both GSC and UGA. A sample of a follow-up survey sent to graduates of a GSC program is contained in Appendix A. The survey is based upon competencies identified by School of Education faculty as important for effective teaching. These competencies are similar to those deemed essential by the Georgia State Department of Education and which appear on the Teacher Assessment Instrument (TPAI). A copy of the competencies assessed by the TPAI are in Figure 3. The results of a follow-up of BSED graduates for 1979 is contained in Appendix B. These scores indicate that GSC graduates believed the program at GSC adequately prepared them to perform most competencies.

The Georgia Teacher Performance Assessment Instrument (TPAI) possesses much potential for follow-up evaluation of teacher education. During Winter Quarter, 1980, Georgia teacher preparation institutions will receive score reports for the fall administration of the TPAI, the first quarter scores are required for certification. Beginning teachers, who are assessed twice in the first year of teaching, will have three years in which to demonstrate a minimum level of performance for each competency and earn a regular professional certificate.

Teacher preparation institutions will regularly receive information regarding the performance of graduates during the first three years of

PLANS INSTRUCTION TO ACHIEVE SELECTED OBJECTIVES.

ORGANIZES INSTRUCTION TO TAKE INTO ACCOUNT INDIVIDUAL DIFFERENCES AMONG LEARNERS.

OBTAINS AND USES INFORMATION ABOUT THE NEEDS AND PROGRESS OF INDIVIDUAL LEARNERS.

REFERS LEARNERS WITH SPECIAL PROBLEMS TO SPECIALISTS.

OBTAINS AND USES INFORMATION ABOUT THE EFFECTIVENESS OF INSTRUCTION TO REVISE IT WHEN NECESSARY.

USES INSTRUCTIONAL TECHNIQUES, METHODS, AND MEDIA RELATED TO THE OBJECTIVES.

COMMUNICATES WITH LEARNERS.

DEMONSTRATES A REPERTOIRE OF TEACHING METHODS.

REINFORCES AND ENCOURAGES LEARNER INVOLVEMENT IN INSTRUCTION.

DEMONSTRATES AN UNDERSTANDING OF THE SCHOOL SUBJECT BEING TAUGHT AND DEMONSTRATES ITS RELEVANCE.

ORGANIZES TIME, SPACE, MATERIALS AND EQUIPMENT FOR INSTRUCTION.

DEMONSTRATES ENTHUSIAM FOR TEACHING AND LEARNING AND THE SUBJECT BEING TAUGHT.

HELPS LEARNERS DEVELOP POSITIVE SELF-CONCEPT.

MANAGES CLASSROOM INTERACTIONS.

Figure 3

List of Competencies from TPAI

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APPENDIX A

EVALUATION OF SCHOOL SERVICE PERSONNEL PROGRAMS
1978 Graduates

Instructions:

As you complete this instrument and check items 1-21, please keep in mind that you are evaluating all work taken at the _____ level.

Please check the category indicating the extent to which your degree program at Georgia Southern College proved effective in developing the following specific competencies.

	Program was				
	Effective to a Great Extent	Effective	Somewhat Effective	Not Very Effective	Not Effective
1. Demonstrates awareness and acceptance of self.					
2. Demonstrates awareness and acceptance of others.					
3. Facilitates the comfort of others in various types of settings.					
4. Understands, appreciates, and utilizes the cultural heritage of self and others in professional interactions.					
5. Demonstrates mastery of communication skills appropriate for various professional settings.					
6. Demonstrates appropriate physical characteristics.					
7. Exhibits appropriate appearance to function in a professional role.					
8. Plans on the basis of needs assessment information.					
9. Develops plans according to explicit objectives.					
10. Organizes people, places, things, and time for the achievement of objectives.					
11. Selects personnel in keeping with established guidelines.					
12. Inspires confidence and cooperation of others.					
13. Interprets system decisions and priorities.					
14. Makes decisions on the basis of sound theory.					
15. Uses input from all possible sources in making decisions.					
16. Works effectively as a team member to accomplish objectives.					
17. Conducts self-evaluation utilizing subjective and objective assessments.					
18. Projects a plan of action for professional self-improvement on the basis of self-evaluation.					
19. Makes program modifications (in area of responsibility) on the basis of data collected.					
20. Conducts program evaluation (in area of responsibility).					
21. Demonstrates personal accountability in terms of pupil benefits and program effectiveness.					

APPENDIX B

Mean ratings of the contributions of the Gerogia Southern College program to twenty-two specific and five general competencies by former Sixth-Year students, their supervisors, and those students not teaching.

1977-78 year	TEACHERS $\bar{X}$	TEACHERS N	SUPERVISORS $\bar{X}$	SUPERVISORS N	NOT-T $\bar{X}$
1. Mastery of communication skills	3.44	9	4.60+	10	4.00
2. Understanding and acceptance of the need for appropriate personal appearance in educational settings	3.10	10	4.50+	10	4.00
3. Awareness and acceptance of others	4.10+	10	4.30+	10	5.00
4. Awareness and acceptance of self	4.10+	10	4.40+	10	4.00
5. Ability to feel comfortable and facilitate the comfort of others in professional settings involving inter-personal interactions	3.70	10	4.20+	10	5.00
6. Possession of basic understanding and appreciation of the cultural heritage	2.80	10	4.11+	9	3.00
7. Possession of acceptable physical characteristics appropriate for functioning in teaching-learning situations (stamina,voice,posture,etc.)	3.10	10	4.33+	9	3.00
8. Ability to accumulate and analyse the following types of information about students: (Background information on family and neighborhood, Inter-personal relationships in and out of school, Performance levels in various curricular areas, Special abilities, Special interests, Self-concept, Special disabilities, Uniques learning styles)	4.20+	10	4.44+	9	4.00
9. Awareness of appropriate channels for access to student data	3.70	10	4.78+	9	4.00
10. Ability to use diagnostic information in prescribing individual instructional programs	3.80	10	4.40+	10	4.00
11. Ability to select and/or prepare learning materials and/or equipment appropriate to instructional programs	4.20+	10	4.60+	10	4.00
12. Ability to sequence planned activities via lesson plans to achieve stated behavioral objectives	3.50	10	4.70+	10	5.00
13. Ability to implement diagnostic prescriptions through the use of varied teaching strategies	3.80	10	4.50+	10	4.00
14. Selection of teaching strategies based on psychological theory	3.60	10	4.00+	10	3.00
15. Construction of individual programs for dealing with disruptive pupil behavior	3.30	10	4.20+	10	3.00
16. Working effectively as a team member in implementing diagnostic prescriptions	3.00	10	4.10+	10	4.00
17. Utilization of variety of audio-visual media to supplement curricular activities	3.30	10	3.90+	10	4.00
18. Recognition and compensation for needs of "Special Education" students in regular classroom	4.00+	10	3.70	10	5.00
19. Understanding and acceptance of personal accountability in					